

FIG. 1

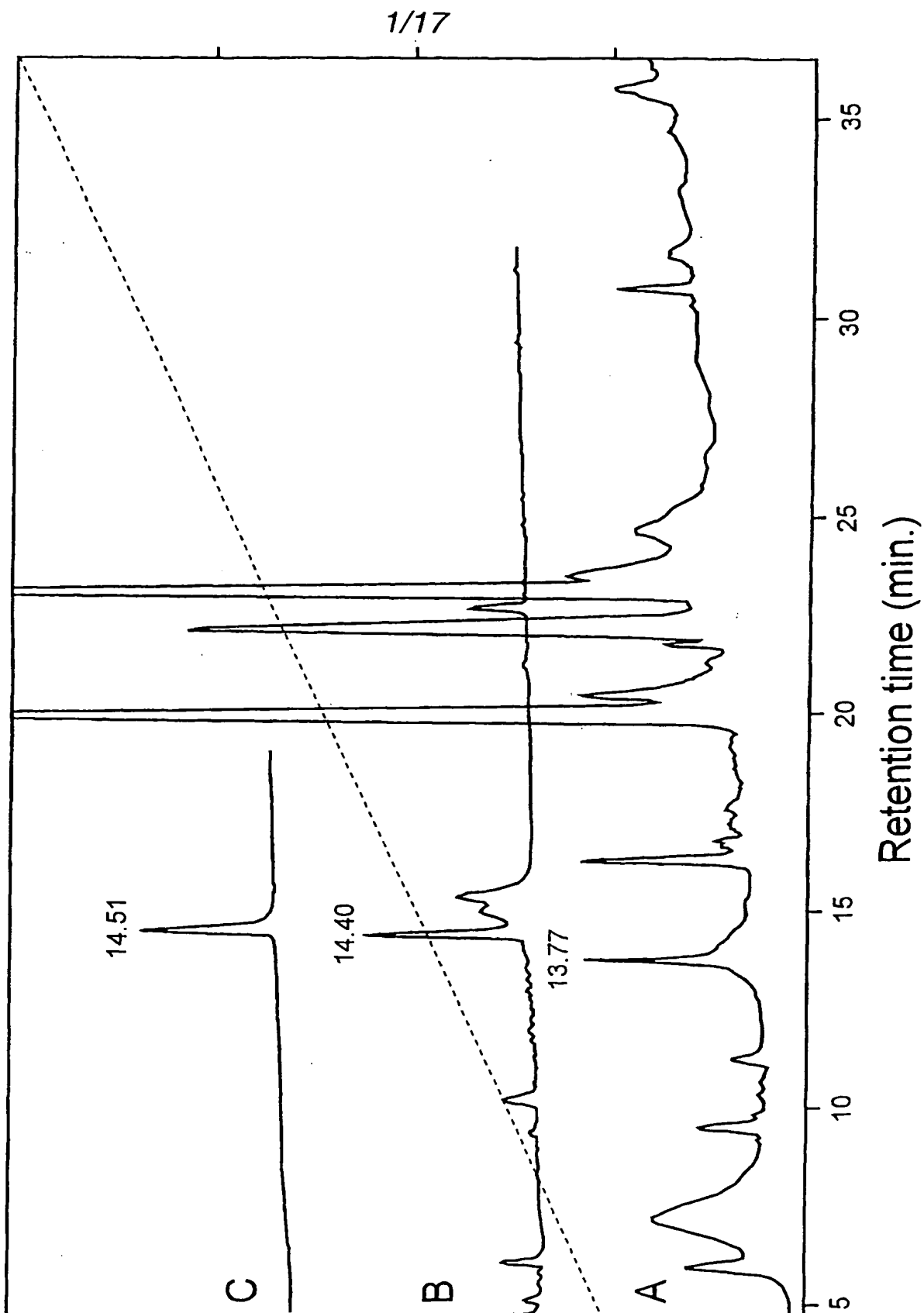
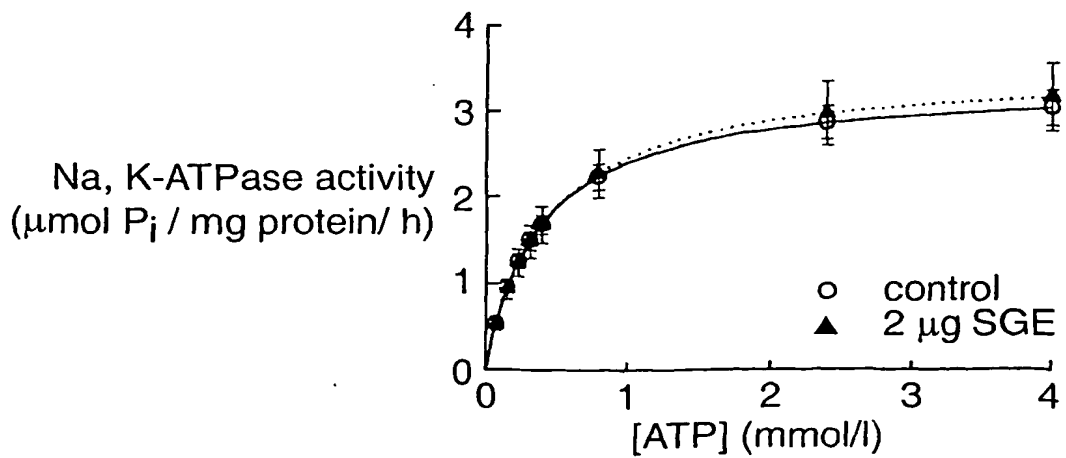
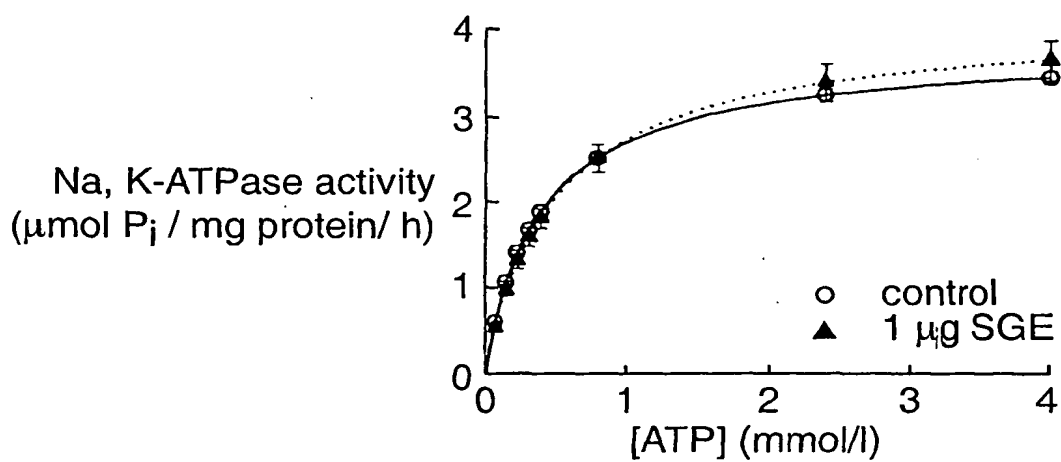
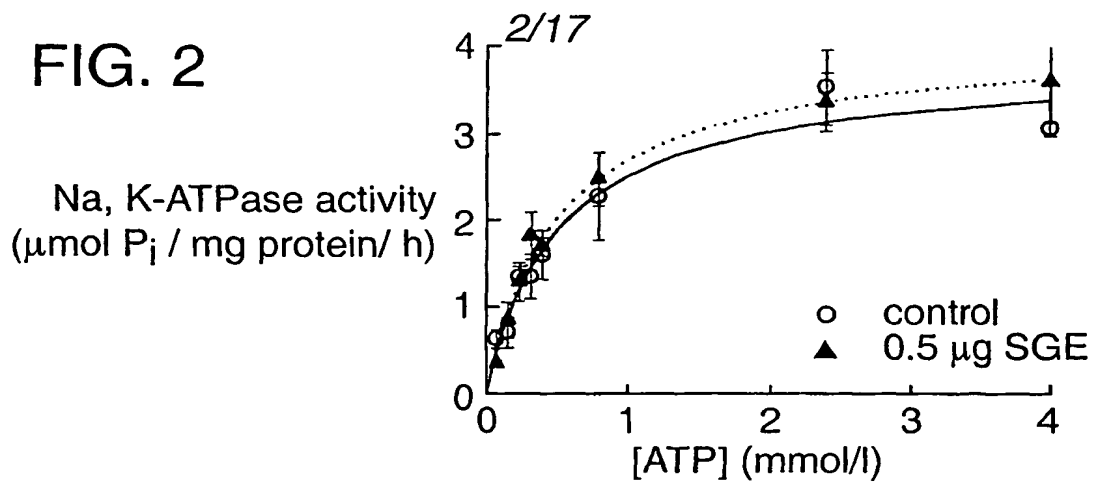


FIG. 2



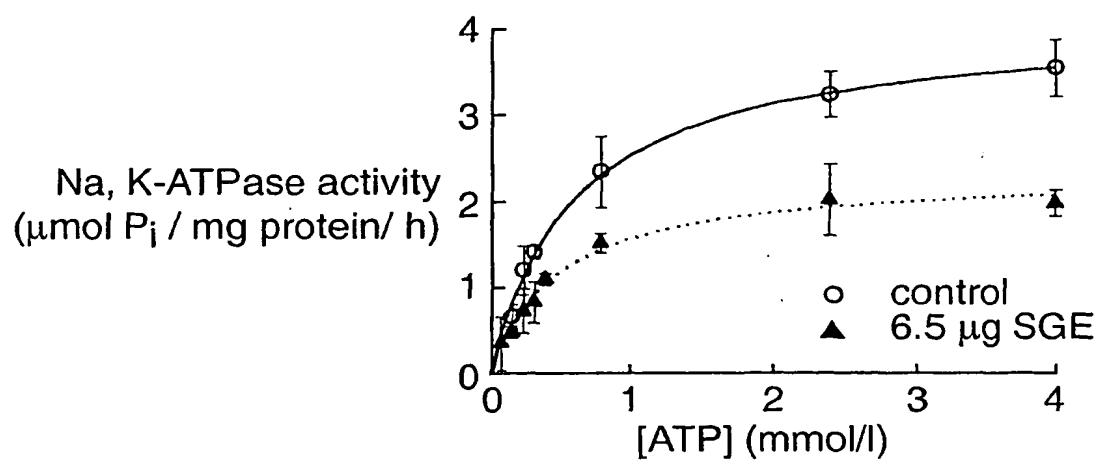
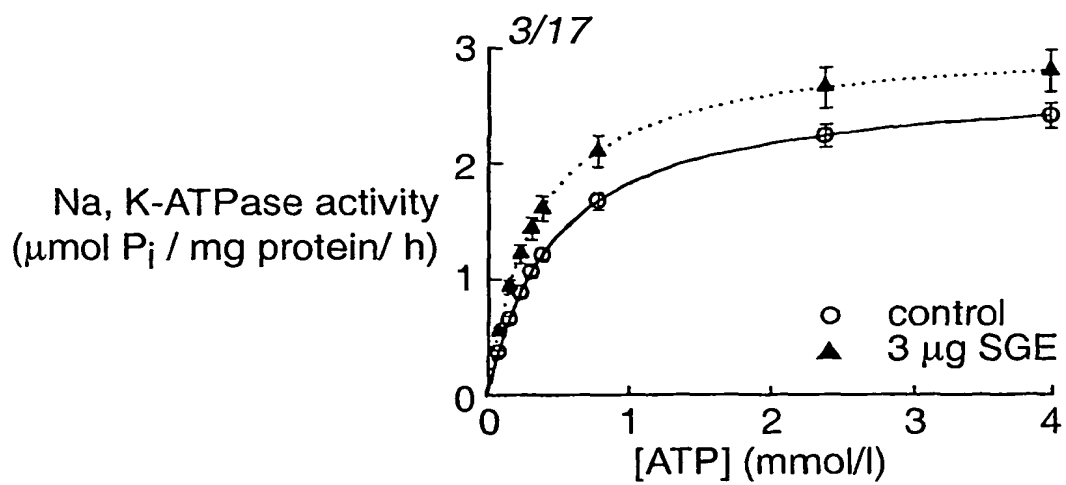


FIG. 2(contd.)

FIG. 3

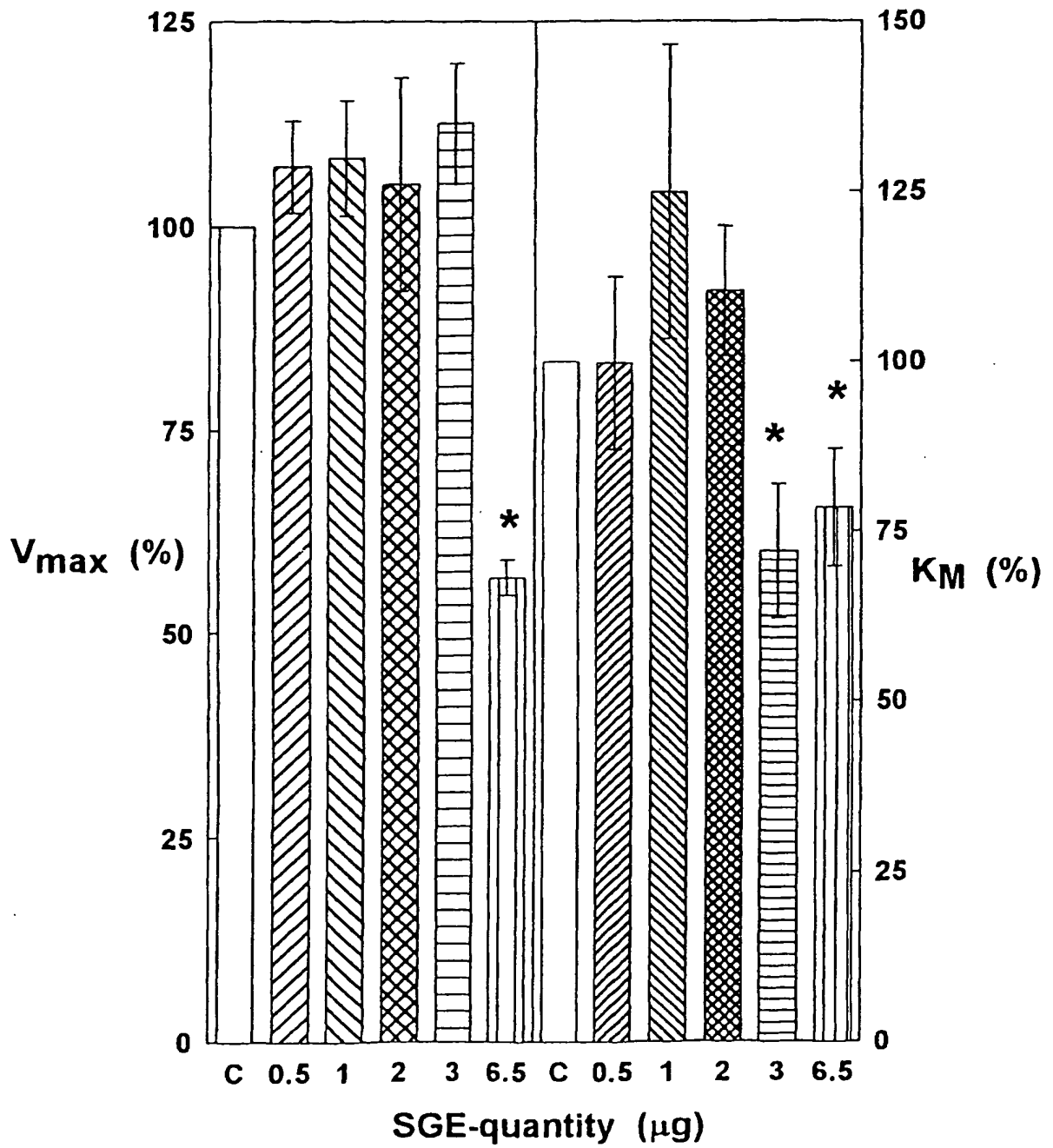


FIG. 4

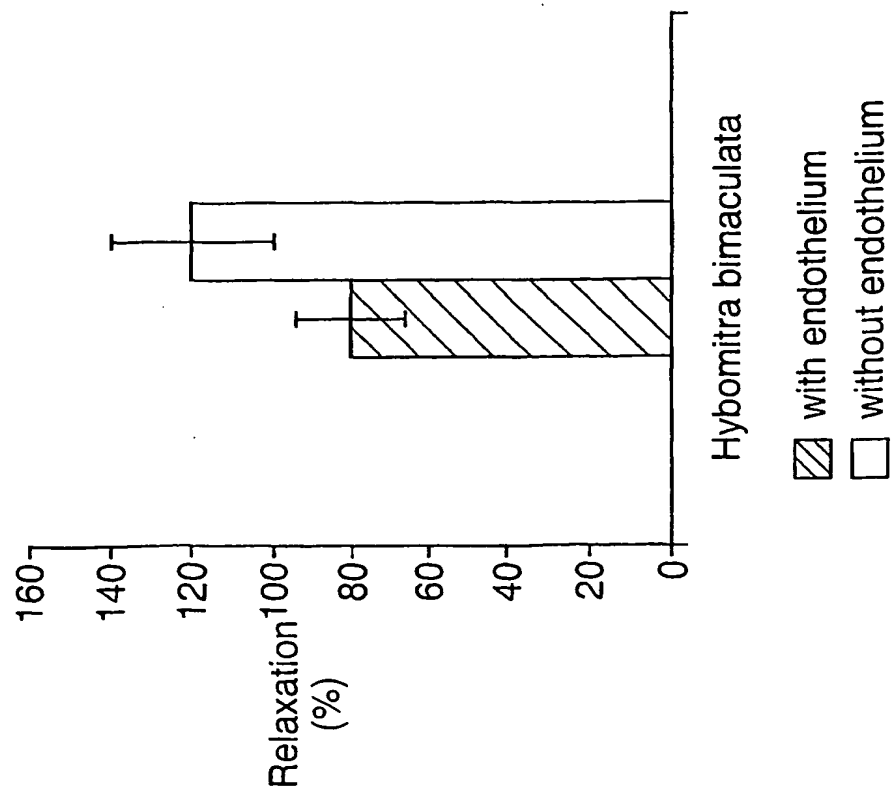


FIG. 5

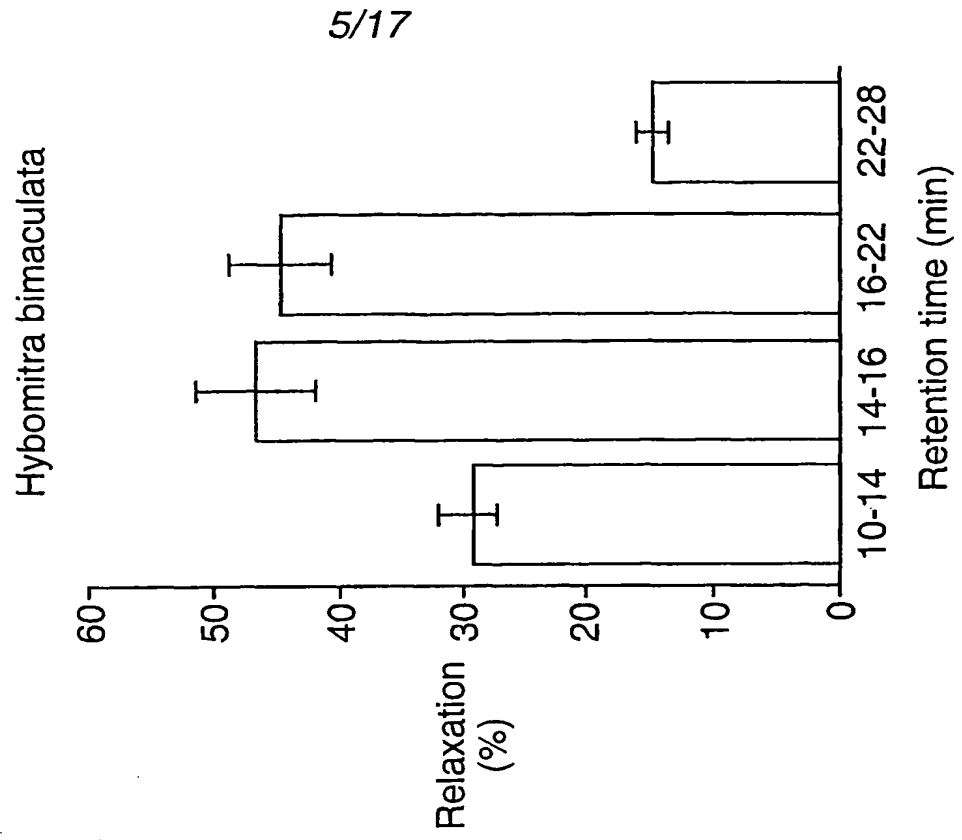


FIG. 6

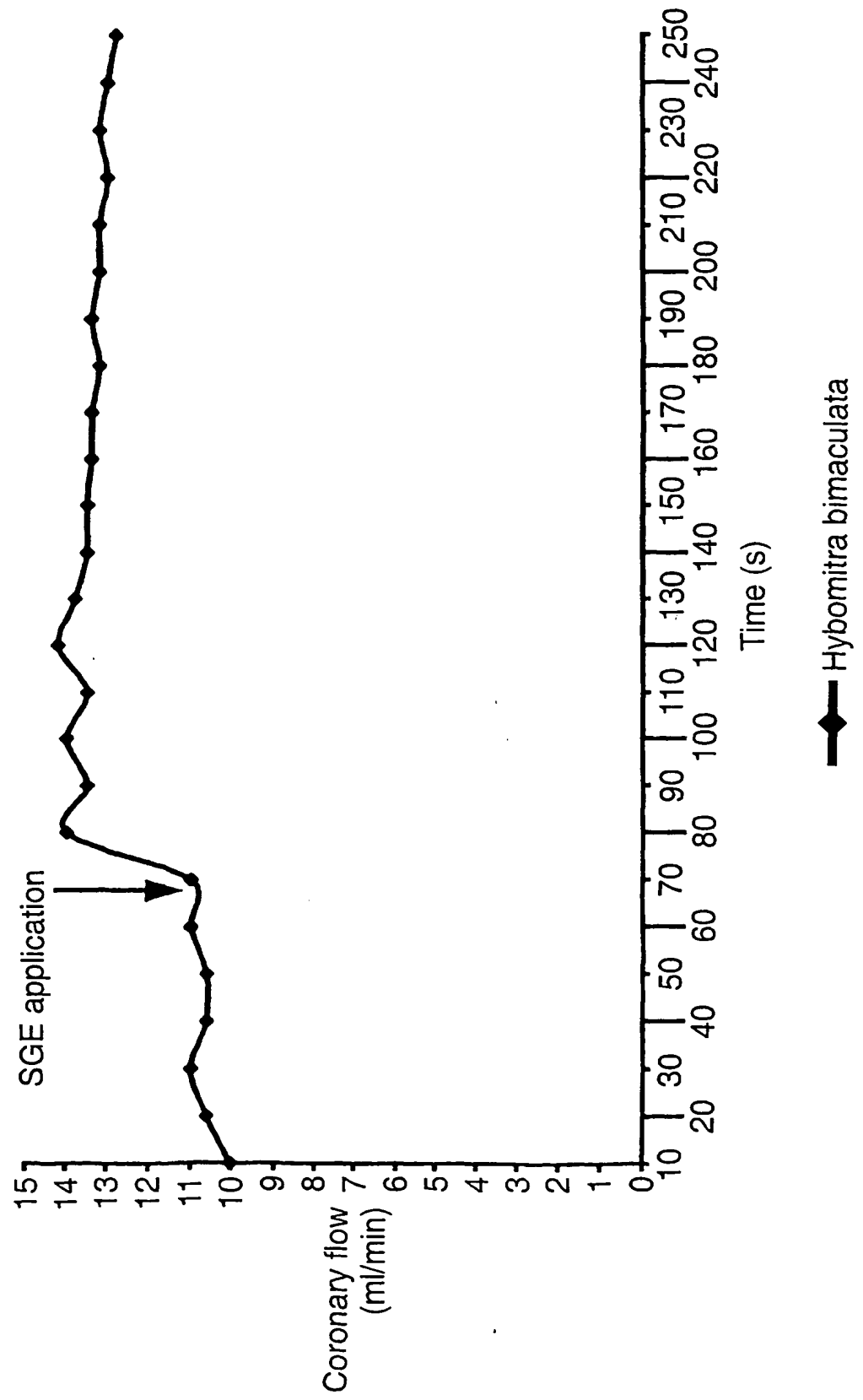


FIG. 7

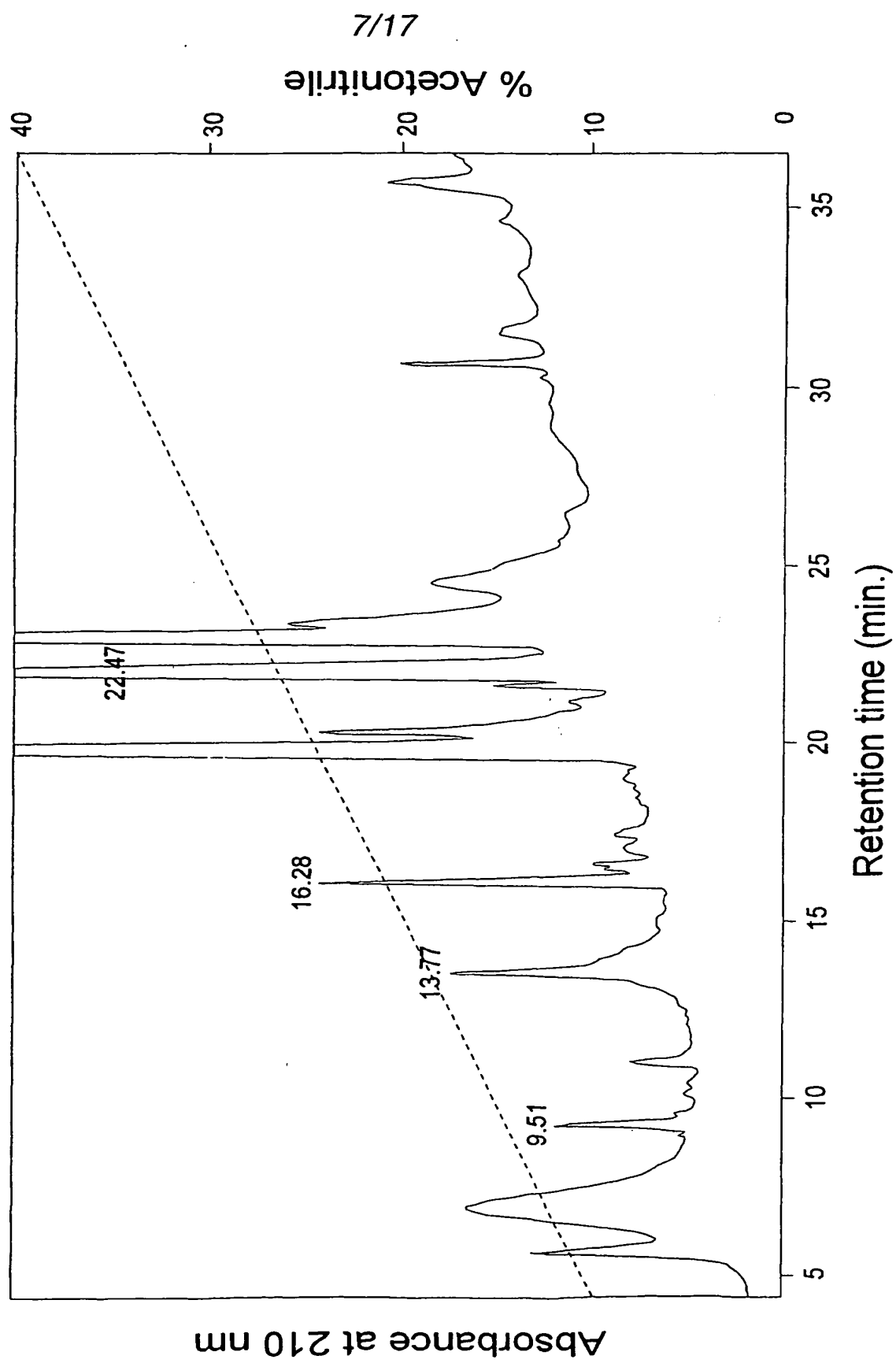


FIG. 8

1 5 10
Asp - Glu - Cys - Pro - Arg - Ile - Cys - Thr - Ala - Asp - Tyr - Arg - Pro - Val -
15 20 25
Cys - Gly - Thr - Pro - Ser - Gly - Gly - Arg - Arg - Ser - Ala - Asn - (Arg) - Thr - Phe -
30 35 40
Gly - Asn - Gln - Cys - (Ser) - (Leu) - (Asn) - (Ala) - (His) - (Asn) - (Cys) - (Leu) -
45 47
(Asn?) - (Lys?/Gly?) - (Lys?/Gly?) - (Asp?) - (Thr?) - (Tyr?) - ...

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1	GT	T	A	G	T	T	T	T	A	T	A	G	T	T	C	T	A	A	A	G	T	T	A	A	C	A	T	N	A	A	50																	
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																		
51	T	C	A	A	A	T	T	G	C	C	T	T	G	T	T	C	A	G	T	T	T	A	G	T	T	G	T	T	C	T	G	A	T	G	C	A												
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	M	K	F	A	A	L	F	S	V	L	V	V	L	L	I	A																																
101	A	C	A	T	T	G	T	T	G	C	G	G	C	T	G	A	T	G	C	C	C	A	C	G	T	A	T	T	G	C	A	C	G	G	C	T	A	T	A	G								
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-											
	T	F	V	A	A	D	E	C	P	R	I	C	T	A	D	Y	R																															
151	A	C	C	G	G	T	A	T	G	C	G	G	C	A	C	T	C	C	C	T	C	T	G	T	G	T	G	T	C	G	C	C	G	A	A	G	T	G	C	A	A	C	A	G	G	A	C	T
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P	V	C	G	T	P	S	G	G	R	R	S	A	N	R	T	F																															
201	T	T	G	A	A	C	C	A	A	T	G	T	A	G	C	C	T	C	A	C	G	C	C	C	A	C	T	G	T	T	G	A	A	C	A	A	G	G	G	A	G	A	T					
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	G	N	Q	C	S	L	N	A	H	N	C	L	N	K	G	D																																
251	A	C	T	A	C	G	A	C	A	A	C	T	G	C	A	T	G	A	T	G	G	C	G	A	G	T	G	C	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	T	Y	D	K	L	H	D</																																									

FIG. 9b

consensus	Csrypnp	tskDgkl	vaCprey	dPVCGs.....	DGvTYsNECeLkk	
	C+r			C+++y+PVCG	++T +N C+L++	
14, 51min	3	CPRI	-----	CTADYR	VPVCGTpsggr	rsANRTFGNQCSLNA 37
consensus	aaCaen	veqgtn	iekkhd	Gpc		
	+ C	++g +	k hdG+C			
14, 51min	38	HNC---	LNKGD	TYDKLHD	GEC	55

FIG. 10

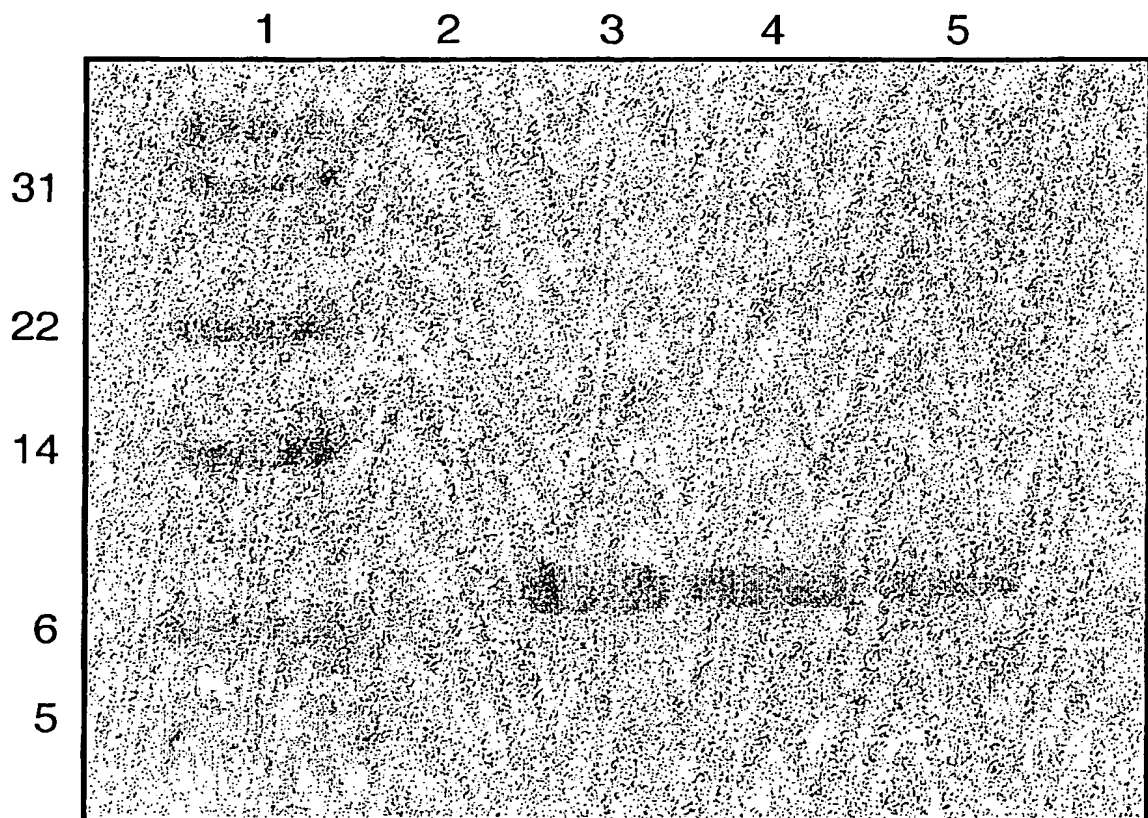
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	1	2	3	4	5	6
	C	C	#	C	C	C
Horse fly EV048	CPRI-----	CT...	ADYRPVCGTpsgrrs	ANRTFGNQCSLNAHNC---	L.NKGDYDKLHDGEC	
THBI_RHOPR/6-48	CA-----	CP...	HALHRVCGS.....	DGETYSNPCTLN---	CAKF-.GKPEL-VKVHDGPC	
THBI_RHOPR/57-101	CQE-----	CD..	gDEYKPVCGS.....	DDITYDNNCRLE---	CASIS.SSPGV-ELKHGPGC	
IELA_ANESU/4-48	CPLI-----	CT...	MQYDPVCGS.....	DGITYGNACMLLGASCRS	DTPIE--LVHKGRC	
AGRI_CHICK/81-126	CKKTA-----	CP...	VVAVPVCGS.....	DYSTYSNECELEKAQC----	NQORRIKVISKGPC	
IAC2_HUMAN/36-84	CSQYRLPG-----	CP...	RHENPVCGS.....	DMSTYANECTL----	CMKIR.EGGHNIKIIRNGPC	
AGRI_CHICK/588-633	CDFT-----	CL..	aVPRSPVCGS.....	DDVTYANECELKKTTC----	EKRQNLVYTSQGAC	
AGRI_RAT/600-645	CDFS-----	CQ..	sVPRSPVCGS.....	DGVTYGTEDCLKKARC----	ESQOELYVAAQGAC	
FSA_HUMAN/118-164	CAPD-----	CsN.	iTWKGPVCGL.....	DGKTYRNECALLKARC----	KEQPELEVQYQGRC	
AGRI_CHICK/156-201	CPAS-----	CS..	gVAESIVCGS.....	DGKDYRSECDLNKHAC----	DKQENVFKKFDGAC	
AGRI_RAT/167-212	CPTT-----	CF..	gAPDGTVCVS.....	DGVDPSECQLLHSHAC----	ASQEHIFKKFNGPC	
AGRI_CHICK/374-418	CQOV-----	CQ..	GRYDPVCGS.....	DNRTYGNPCELNAMAC----	VLKREIRVKHKGPC	
AGRI_RAT/385-429	CQRV-----	CS..	GIYDPVCGS.....	DGVTYGSVCELESMAAC----	TLGREIQVARRGPC	
PE60_PIG/37-86	CEHMTESPD-----	CS..	RIYDPVCGT.....	DGVTYESECKL----	CLARI.ENKQDIQVKGDEC	
IPSI_RAT/32-79	CPKQIMG-----	CP...	RIYDPVCGT.....	NGITYPSECSL----	CFENR.KFGTSIHIQRRGTC	
IPSI_RAT/32-79	CPNTLVG-----	CP...	RDYDPVCGT.....	DGKTYANECIL----	CFENR.KFGTSIRIQRRGLC	
IPST_BOVIN/9-56	CTNEVNG-----	CP...	RIYNPVCGT.....	DGVTYSNECLL----	CMENK.ERQTPVLIQKSGPC	
IPST_CANFA/10-57	CNLKVNG-----	CN..	KIYNPICGS.....	DGITYANECIL----	CLENK.KRQTSILVEKSGPC	
AGRI_CHICK/439-483	CPTE-----	CV..	PSSQPVCGT.....	DGNTYGSECELHVHAC----	TQQKNILVAAQGDG	
AGRI_RAT/450-494	CPSE-----	CV..	ESAQPVCGS.....	DGHTYASECELHVHAC----	THQISLYVASAGHC	
AGRI_CHICK/504-548	CPR-----	CE..	qQPLAQVCGT.....	DGLTYDNRCELRAASC----	QQQKSIEVAKMGPC	
AGRI_RAT/515-559	CPR-----	CE..	hPPGPVCGS.....	DGVTYLSACELREAAC----	QQQVQIEEAHAGPC	
AGRI_CHICK/805-851	CPSP-----	CS..	eANMTKVCVS.....	DGVTYGDQCQLKTIAC----	RQGLITVKKHVGQC	
AGRI_RAT/818-864	CPTLT-----	CP..	eANSTKVCVS.....	DGVTYGNECQLKAJAC----	RQRLDISTQSLGPC	
IOV7_CHICK/28-85	CSLYASGIGKDGTSWVACP...	RNLKPVCGT.....	DGSTYSNECGI----	CLYNR.EHGANGEKEYDGE		
IOV7_CHICK/94-150	CSPYLQV-VRDGNtMVACP...	RILKPVCGS.....	DSFTYDNECGI----	CAYNA.EHHTNISKLHDGEC		
IOV7_CHICK/159-216	CSKYPSTVSKDGRtLVACP...	RILSPVCGT.....	DGFTYDNECGI----	CAHNA.EQRTHSVSKKHDKGC		
IOV7_CHICK/225-282	CDQYPTKTTGGKILVRCP...	RILLPVCGT.....	DGFTYDNECGI----	CAHNA.QHGTEVKKSHDGR		
IOVO_CHICK/29-86	CSRFPNATDKEGKdVLVCN...	KDLRPICGT.....	DGVTYTNDCLL----	CAYSI.EFGTNISKEHDGEC		
IOVO_COTJA/5-62	CSRFPNTTNEEGKdEVVCP...	DELRICGT.....	DGVTYNHECML----	CFYNK.EYGTNISKEQDGE		
IOVO_CHICK/94-151	CSSYANTTSEDGKvMVLN...	RAENPVCGT.....	DGVTYDNECLL----	CAHKV.EQGASVDKRHDGEC		
IOVO_COTJA/70-127	CSRYPNTTSEDGKvTILCT...	KDFSFCVCGT.....	DGVTYDNECML----	CAHNV.VQGTSGVKKHDKGC		
IOV7_CHICK/356-413	CSKYKTSTLKDGKqVVACT...	MIYDPVCAT.....	NGVTYASECTL----	CAHNL.EQRTNLGKRKNGR		
IPST_ANGAN/12-61	CGEMSAMHA-----	CP...	MNFAPVCGT.....	DGNTYPNECSL----	CFQRQ.NTKTDILITKDDRC	
AGRI_CHICK/299-344	CDRIT-----	CD..	GTYPVCAR.....	DSRTYSNDCERQKAEC----	HQKAAIPVKHSGPC	
AGRI_RAT/311-356	CDRV-----	CD..	GSYPVCAQ.....	DGHTYNNDCWRQQAEC----	RQRAIPPKHSGPC	
FSA_HUMAN/270-316	CDEL-----	Cpd.	sKSDPVCAS.....	DNATYASECAMKEAAC----	SSGVLLVLEKHSGSC	
IPSG_CANFA/12-64	CSNYKGKGS----	QIACP..	RLHQPICGT.....	DHKTYSNECMF----	CALT.L.NKKFEVRKLQDTAC	
IPSG_MELME/16-68	CSKYNAGKS----	QFACS..	RHLDPVCGT.....	DHRTYSNECMF----	CMLTQ.NKRFVSRIQLDNNC	
IPSG_FELCA/8-60	CSQYNRKG----	GITCS..	KWKPICGI.....	DHKTYSNECMF----	CQLNQ.NKRFQLRKLHDNKC	
IAC1_BOVIN/14-61	CKVYTEA-----	CT...	REYNPICDS.....	AAKTYSNECTF----	CNEKM.NNDADIHFNFHGE	
IACA_PIG/7-57	CNVYRSH-----	LFCT..	RQMDPICGT.....	NGKSYANPCIF----	CSEKG.LRNQKFDGFHWGHC	
IAC2_BOVIN/7-57	CAEFKDP-----	KVYCT..	RESNPHCGS.....	NGETYGNKCAF----	CKAVM.KSGGKINLKHGRKC	
IOV7_CHICK/422-472	CREFQKV-----	SPICT..	MEYVPHCGS.....	DGVTYSNRCFF----	CNAVY.QSNRTNLNLSMAAC	
IOVO_ABUPI/8-56	CSDHPPK-----	ACL..	QEQLPCGS.....	DNKTYDNKCSF----	CNAVY.DSNGTLTSLHFGKC	
IOVO_FRACO/5-53	CSEYPPK-----	CT...	MEYRPVCGS.....	DNITYGNKCNF----	CNAVY.KSNGTLTSLHFGKC	
IOVO_CASCA/6-54	CSEYPPK-----	VCS..	PEYMLCGS.....	DSKTYNNKCDF----	CSAVV.ESNGTLTLGHFGKC	
IOVO_EUDEL/5-51	CSGYPPK-----	ACT..	LEFFPLCGS.....	DNQTYSNKCAF----	C-NA.AVEKNVTLNHIGEC	
IPSG_CANFA/68-115	CTEYSDM-----	CT...	MDYRPLCGS.....	DGKNYSNKCFS----	CNAVY.KSRGTIFLAKHGEC	
IPSG_FELCA/64-111	CTNYSA-----	ICT..	MEYFPLCGS.....	DGQEYSNKCFL----	CNEVV.KRRGTIFLAKYGQC	
AGRI_CHICK/227-273	LSRPEN-----	CP...	SKREPVCGD.....	DGVTYASECVMGRTGA----	IRGLEIQKVRSGQC	
AGRI_RAT/237-284	MLLRPEN-----	CP...	AQHTPICGD.....	DGVTYENDCVMSRIGA----	TRGLLLQKVRSGQC	
FSA_HUMAN/192-239	CNRI-----	CPe	pasSEQYLCGN.....	DGVTYSSACHLRKATC----	LLGRSIGLAYEGKC	
QR1_COTJA/468-521	CQDPAA-----	CPs.	tKDYKRVCGT.....	DNKTYDGTQCLFGTKCQLEGTKMGRQLHLDDYMGAC		
SCI_RAT/426-479	CQDPET-----	CPp.	aKILDQACGT.....	DNQTYASSCHLFATKCMLEGTKKGHQLQLDYFGAC		
SPRC_BOVIN/95-149	CQDPTS-----	CPa	pigeFEKVCN.....	DNKTFDSSCHFFATKCTLEGTKKGHLHLDDYIGPC		

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FIG. 11



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FIG. 12A

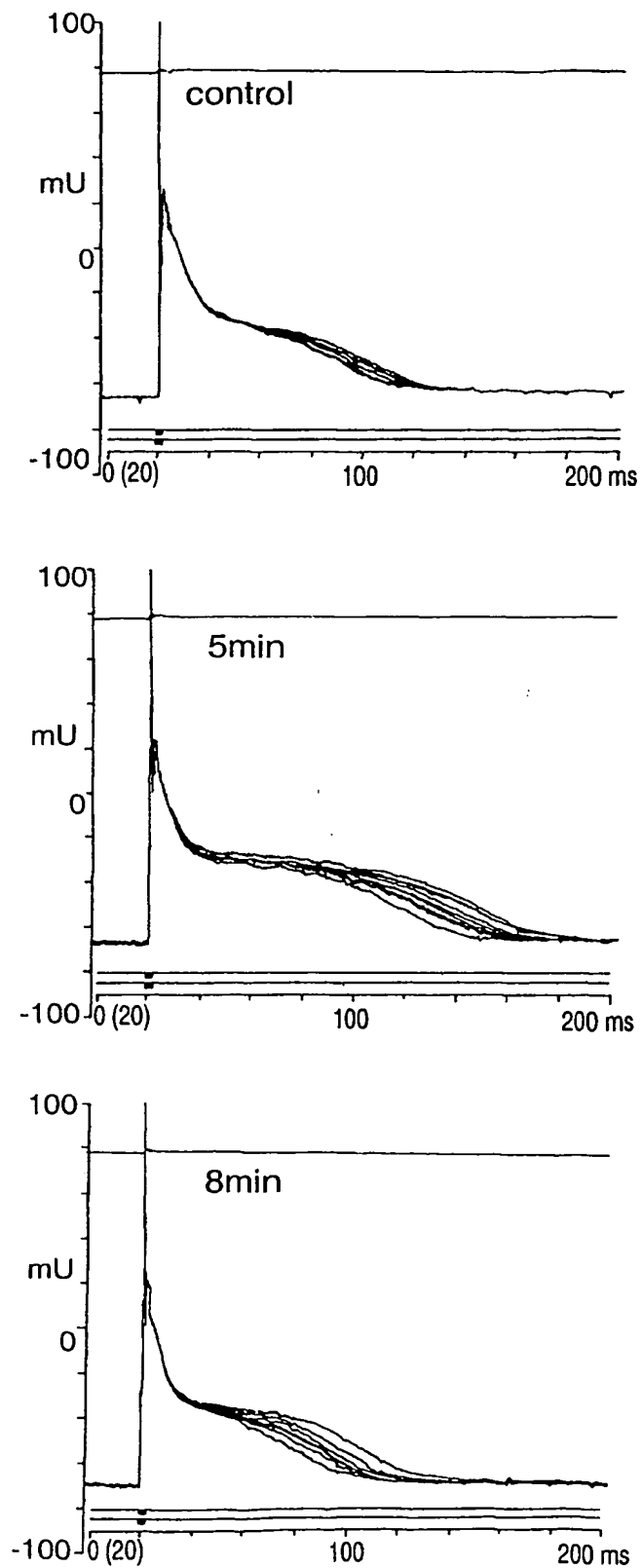


FIG. 12B

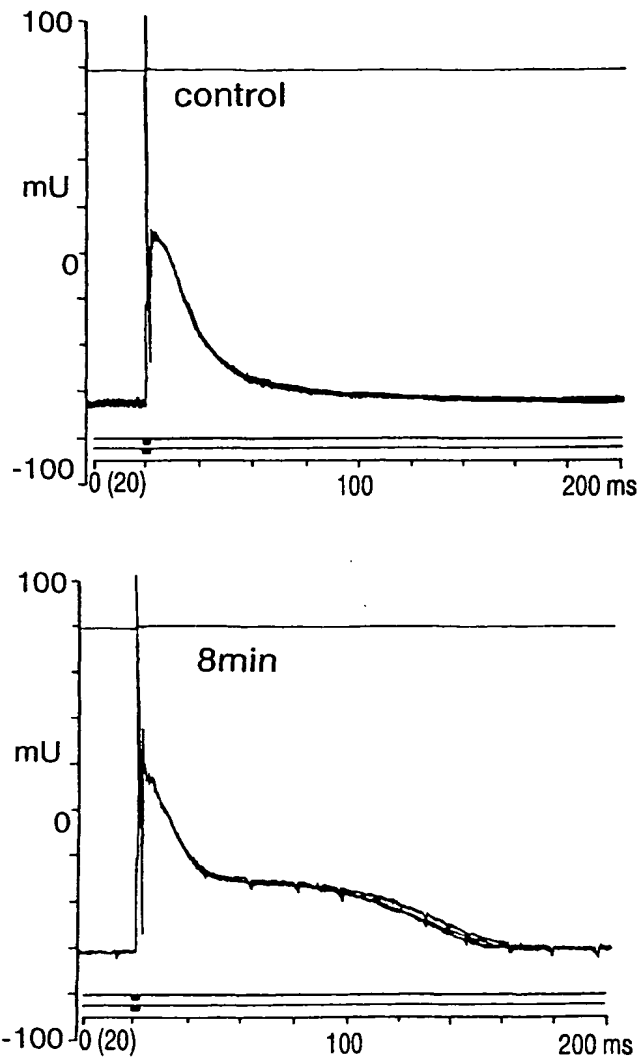
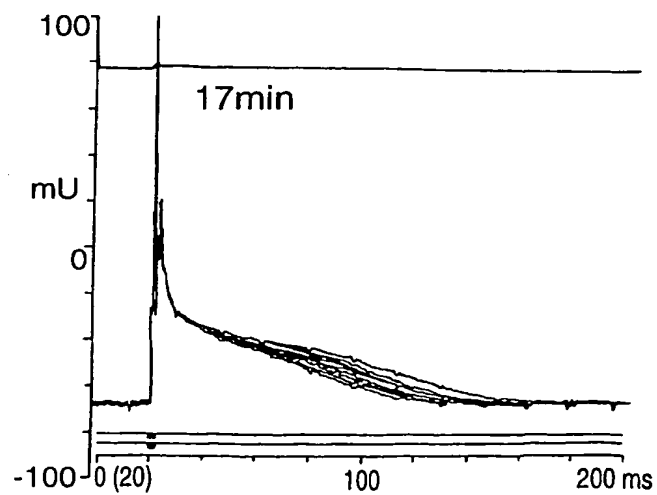
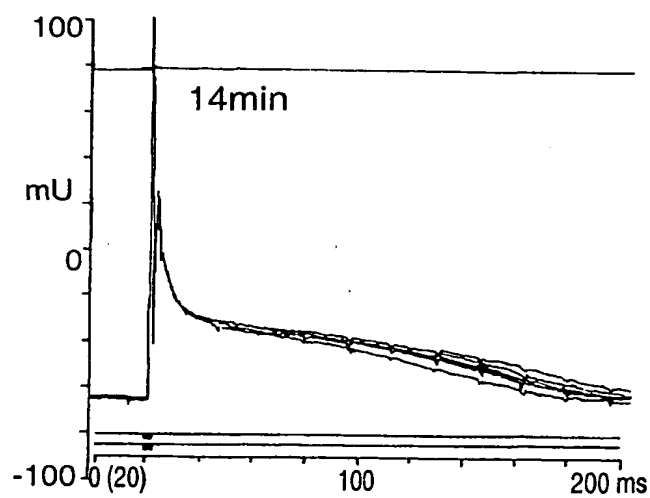
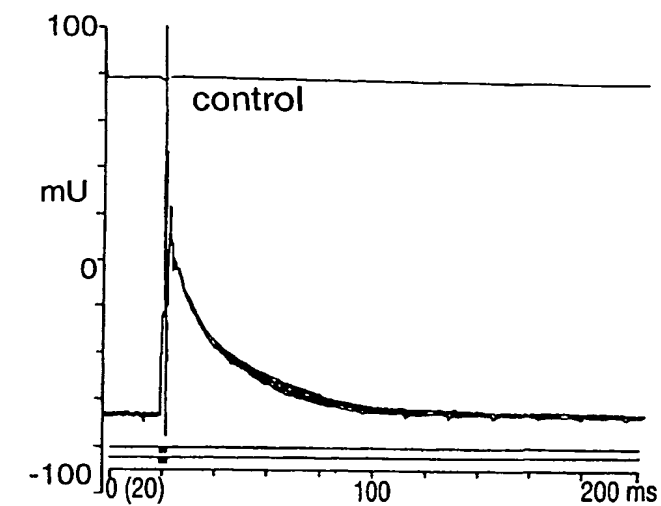


FIG. 12C

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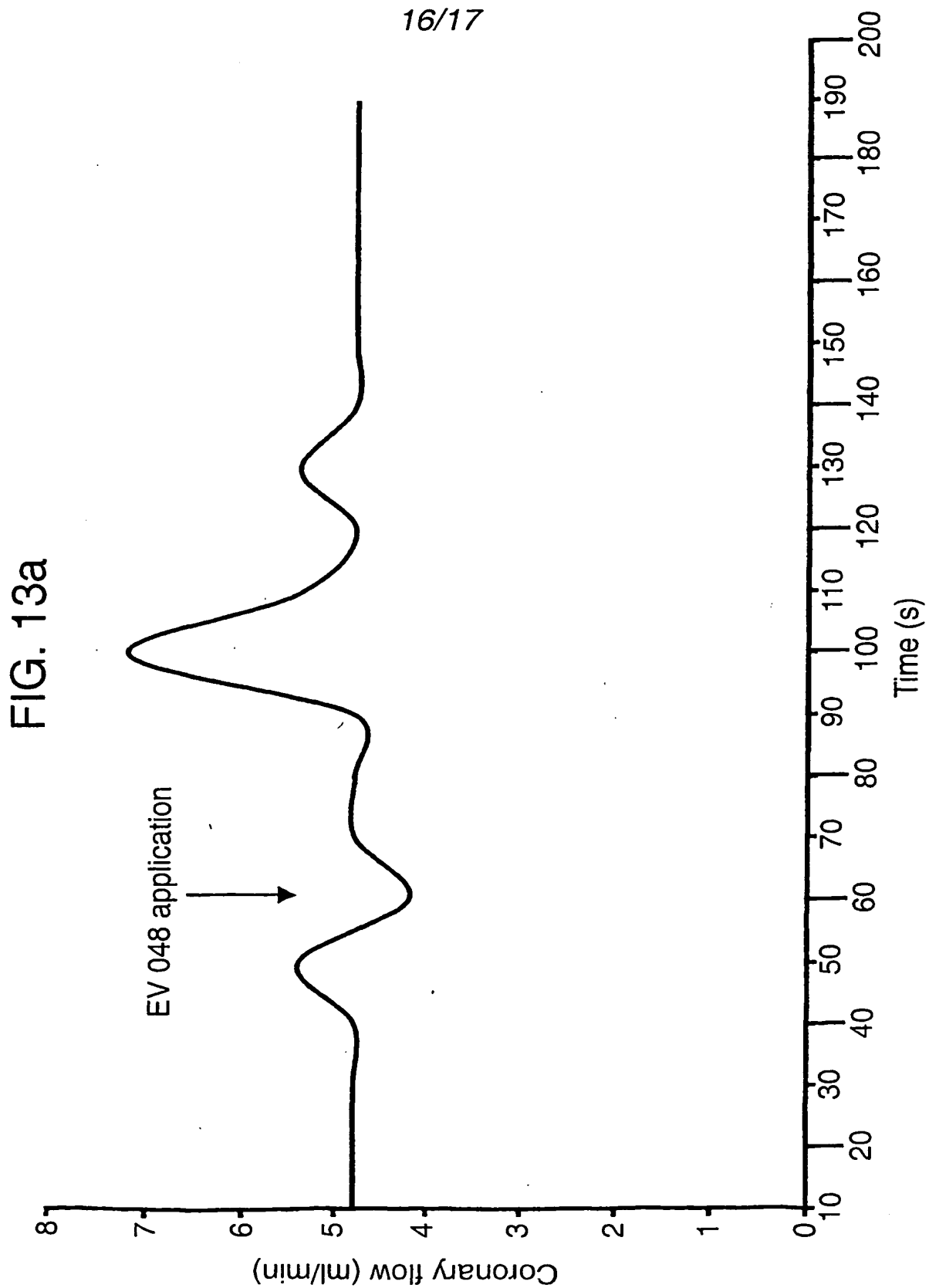


FIG. 13b

